soberton inc.

WST BUZZER

Acoustic Product Specification

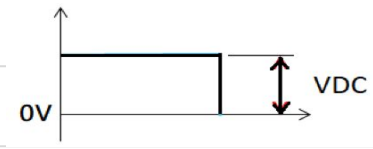
Product Number: WST-1201UX

Release | Revision: A/2018

CONTENTS

This document contains the technical specifications for the electromagnetic buzzer.

Specifications

Item	Unit	Specification	Condition
Rated Voltage	VDC	1.5	
Operating Voltage	VDC	1.4 ~ 2.5	
Mean Current	mA	25 Max	At rated voltage
Sound Output	dBA	75	At 10cm at rated voltage
Rated Frequency	Hz	2300 ±400	
Operating Temp	℃	-20 ~ +60	
Storage Temp	℃	-30 ~ +70	
Dimension	mm	φ12.0 x H7.5	See attached drawing
Weight	gram	2.0	
Material		PPO (Black)	
Terminal		Pin Type (Plating Sn)	See attached drawing
Environmental Protection Regulation		RoHS	

Test condition:

Temperature: +25±2 ℃ **Related humidity:** 65±5% **Air pressure:** 86-106KPa

Mechanical Characteristics

Item	Test condition	Evaluation standard
Solderability	Leads terminals are immersed in rosin for 5 seconds and then immersed in the solder bath at +250±5°C for 3±0.5 seconds.	90% min. lead terminals shall be wet with solder.
Soldering Heat Resistance	Lead terminals are immersed in the soldering bath at +250±5°C for ±0.5 seconds.	No interference in operation.
Terminal Mechanical Strength	The force of 9.8N is applied to each terminal in axial direction for 10 seconds.	No damage and cutting off
Vibration	The part shall be subjected to a vibration cycle of 10hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm(9.3g). The vibration test shall consist of 2 hours per axis in each three axes(X,Y,Z). Total 6 hours.	After the test, the part shall meet specifications without any damage in appearance and performance except SPL.
Drop Test	The part is dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes(X,Y,Z). Total of 9 times.	

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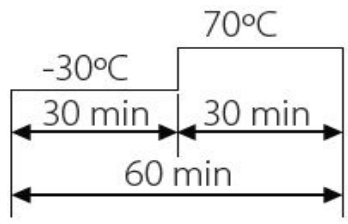
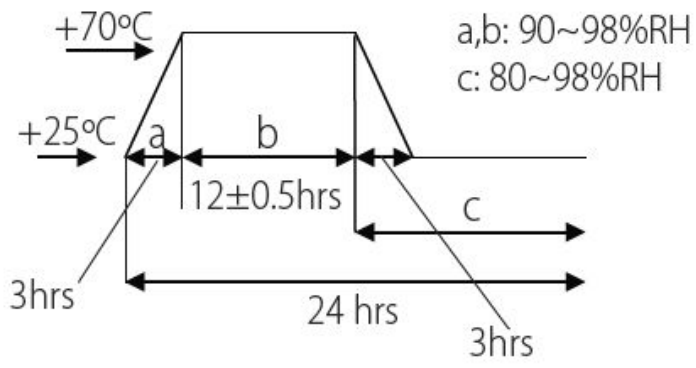
Environment Test

Item	Test condition	Evaluation standard
High Temp. Test	The part is placed in a chamber at +70°C for 96 hours.	After the test, the part shall meet specifications without any degradation in appearance and performance except SPL. After 4 hours at +25°C, the SPL should be in ±10dBA compared with initial one.
Low Temp. Test	The part is placed in a chamber at -30°C for 96 hours.	
Thermal Shock	The part shall be subjected to 10 cycles. Each cycle shall consist of: 	
Temp./Humidity Cycle	The part shall be subjected to 10 cycles. One cycle shall be 24 hours and consist of: 	

Reliability Test

Item	Test condition	Evaluation standard
Operating Life Test	**Ordinary Temperature** The part shall be subjected to 96 hours of continuous operation at +25˚C±10˚C. **High Temperature** The part shall be subjected to 72 hours of continuous operation at +60°C at 1.5V applied. **Low Temperature** The part shall be subjected to 72 hours of continuous operation at -20°C at 1.5V applied. **High and Low Voltage** Applying 1.4 voltage and 2.0 voltage, available time 24 hours each.	After the test, the part shall meet specifications without any degradation in appearance and performance except SPL. After 4 hours at +25°C, the SPL should be in ±10dBA compared with initial one.

Standard test condition:

a) Temperature: +25~+2℃
b) Humidity: 65±5%
c) Pressure: 86-106KPa

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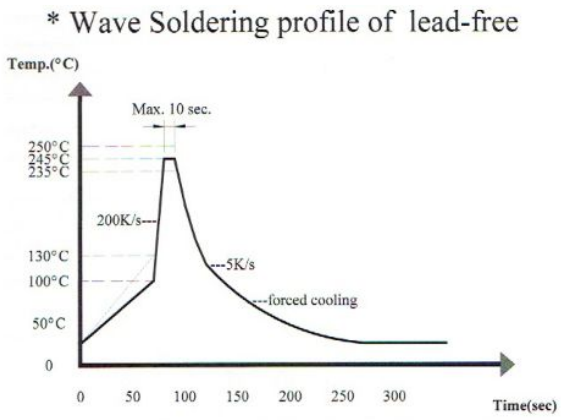
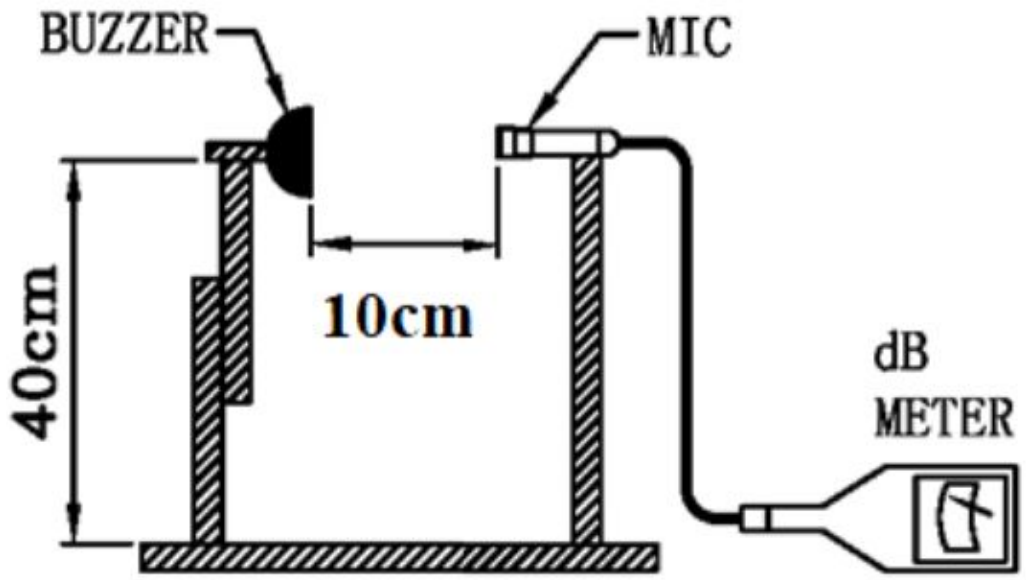
Recommended Wave Soldering Temperature Curve



Recommendable wave soldering condition is as follows:
Note 1: It is requested that wave soldering should be executed after heat of product goes down to normal temperature.
Note 2: Peak wave temperature of 235°C maximum of 10 seconds.

Inspection Fixture

S.P.L. Measuring Circuit
Input Signal: 1.5 VDC



Mic: RION S.P.L meter UC30 or equivalent

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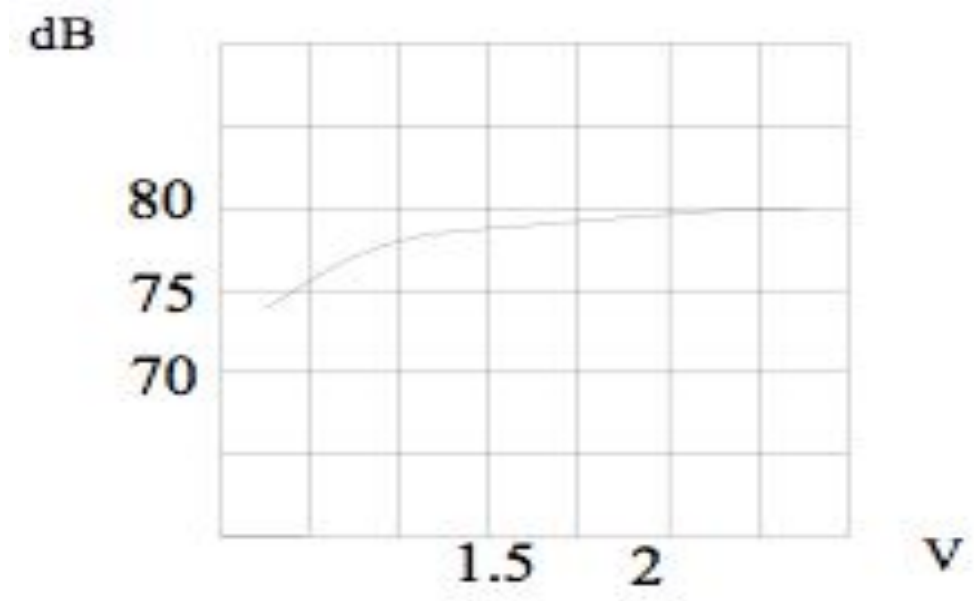
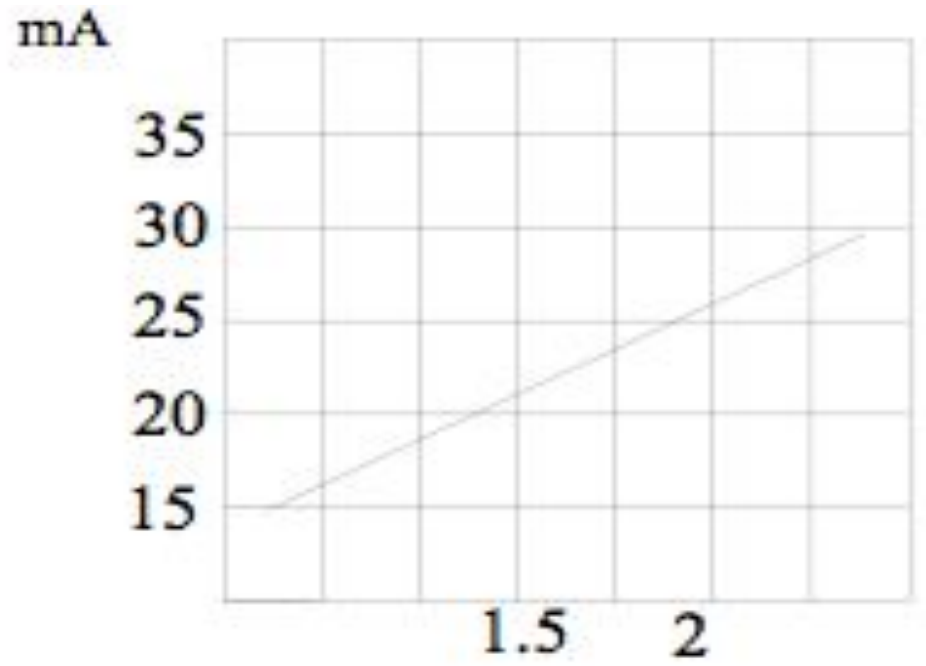
Typical Frequency Response Curve





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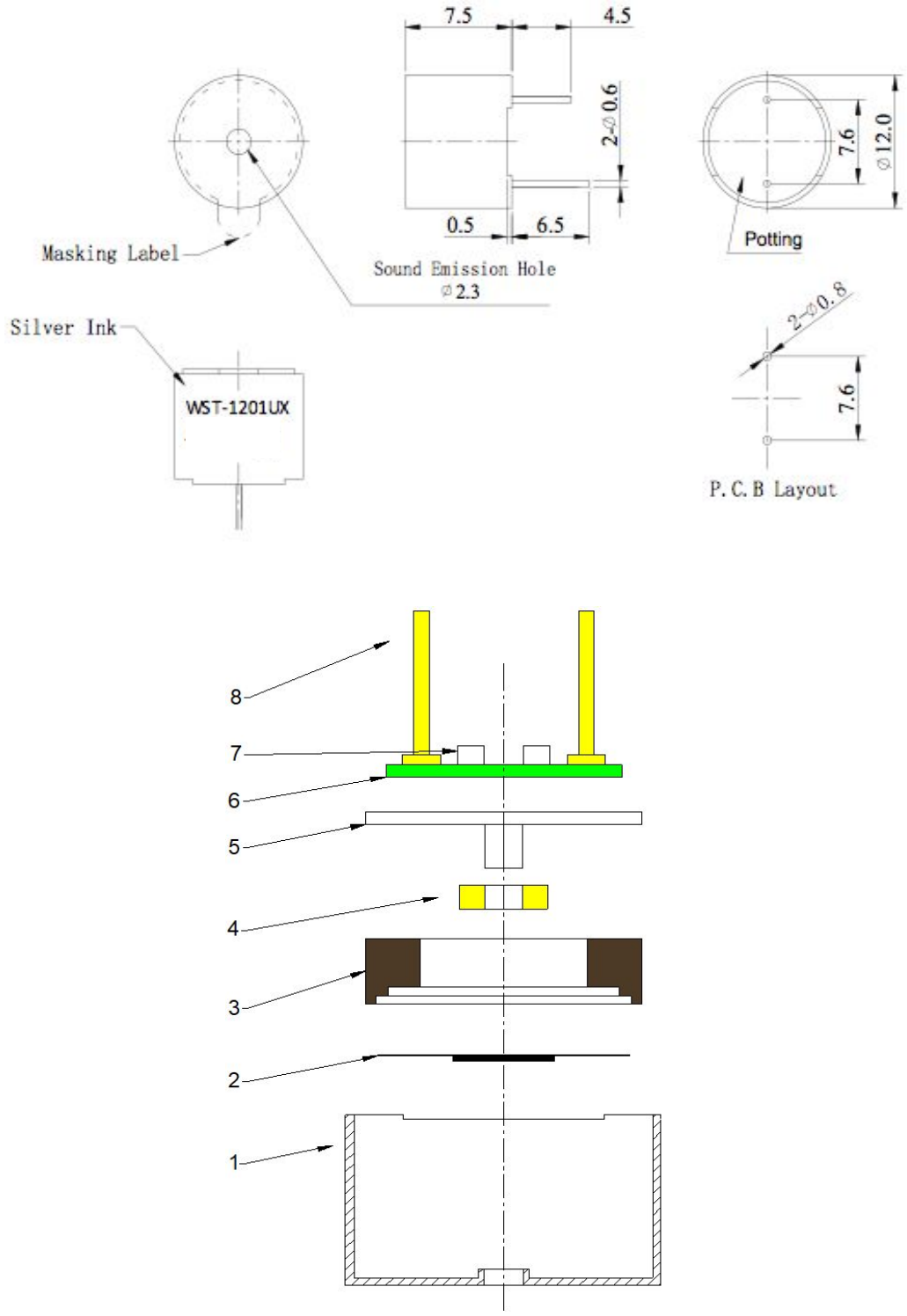
Dimensions

Tolerance: ±0.5 (unit: mm)



No.	Part Name	Material	Quantity
1	Case	PPO	1
2	Diaphragm	Ferrum	1
3	Magnet Ring	Poly + Ferrite	1
4	Coil	Copper	1
5	Core	Ferrum	1
6	PCB	Epoxy Glass Fiber Cloth + Copper	1
7	Transistor	Epoxy + Copper	2
8	PIN	Copper	2

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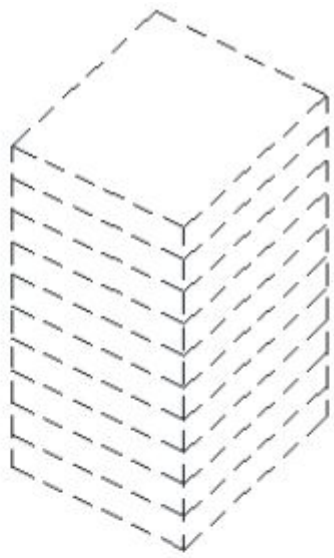
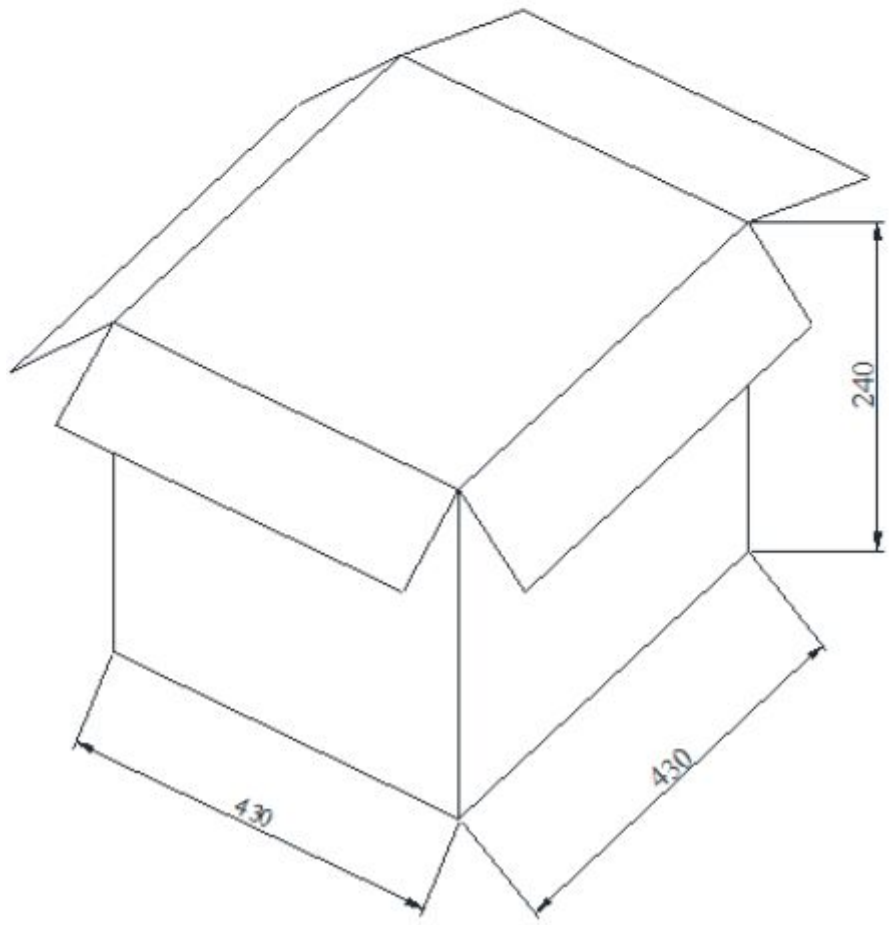
Packing





Packing Box	LxWxH (mm)	Pieces
Tray	190 x 190 x 25	100
Inner Carton	210 x 210 x 220	1,000
Outer Carton	430 x 430 x 240	4,000